

Attorney Docket No.: 119929-1040

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Harold R. Garner  
Serial No: Continuation of 09/326,526  
Filing Date: Concurrently herewith  
Group/Art Unit: 2872  
Examiner: Phan, J.  
Title: DIGITAL OPTICAL CHEMISTRY MICROMIRROR IMAGER

Commissioner for Patents  
Washington, D.C. 20231

**DECLARATION UNDER 37 C.F.R. § 1.131 OF PRIOR INVENTION IN THE UNITED STATES TO OVERCOME CITED REFERENCE**

**Purpose of Declaration**

1. This declaration is to establish completion of the invention, which is the subject of the Continuation of Patent Application Serial No. 09/326,526, filed June 4, 1999, entitled "DIGITAL OPTICAL CHEMISTRY MICROMIRROR IMAGER," which claims priority to Provisional Patent Application Serial No. 60/087,948, filed June 4, 1998 in the United States at a date prior to February 1998, which is the date of the prior art cited by the Examiner in the Office Action mailed January 2, 2001.
2. The person making this declaration is the inventor.
3. The Board of Regents, The University of Texas System is the owner of the patent application by Assignment dated June 3, 1998, recorded on June 4, 1998 at reel 9217, frame 0897.

**Facts and Documentary Evidence**

4. To establish the date of completion of the invention of this application, the following copies of a presentation related to a grant application is attached hereto as Exhibit A and submitted as evidence. The photograph in Exhibit A was taken in August 1997 and demonstrates that the device as claimed had been built and was operating prior to the filing date of the reference cited as prior art in the parent application of this filing. Exhibit A, attached hereto, demonstrates that the device as claimed had been not only conceived but reduced to practice

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before the filing date of the art cited in the parent application. Furthermore, this affidavit in conjunction with the affidavit under 37 C.F.R. § 1.131 filed in the parent application demonstrated that the device was used to form a mask pattern formed and printed using the present device, and was therefore reduced to practice in the United States prior to the filing date of the art used the for rejection.

5. From the lab notebook pages attached hereto as Exhibit A, it can be seen that the invention in this application was used to produce a mask pattern on a substrate on the date even therewith, which is on or before February 23, 1998, which is a date earlier than the effective date of the reference cited in the parent application.

#### Time of Presentation of the Declaration

6. This declaration is submitted prior to final rejection.

#### Declaration

7. As a person signing below:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

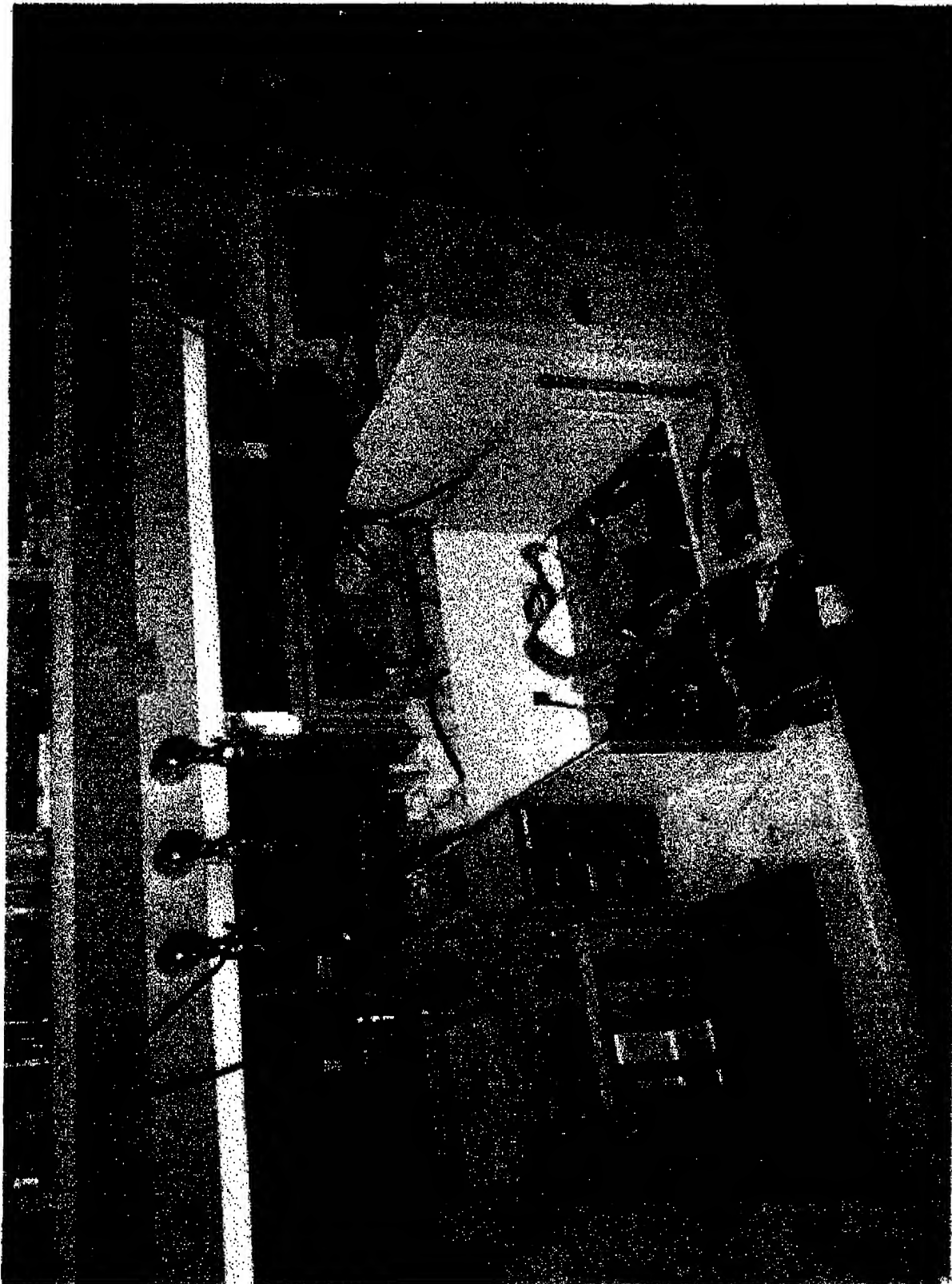
#### Signature

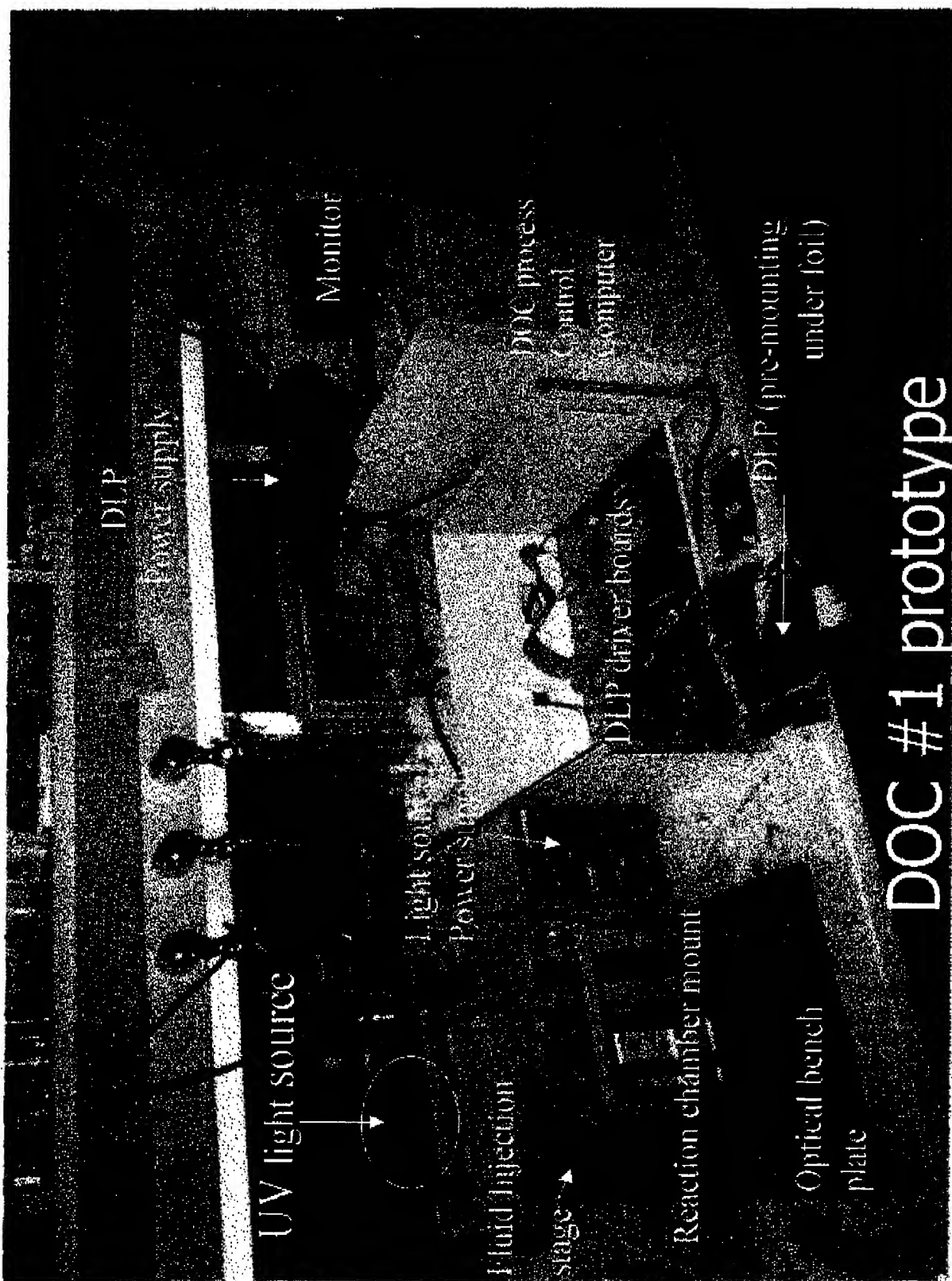
Date: 4/28/01

By: Harold R. Garner  
Harold R. Garner, Ph.D.  
as named inventor.

Residence address:  
4100 Post Oak Road  
Flower Mound, Texas 75028

Business address:  
5323 Harry Hines Blvd, Mail Station 8591  
Dallas, Texas 75390-9094





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TITLE \_\_\_\_\_

Page No. \_\_\_\_\_

EXHIBIT

- 1) Slide was modified with  $(\text{Et}_3\text{O})\text{Si}(\text{CH}_2)_3\text{N}(\text{CH}_2\text{CH}_2\text{OH})_2$  as described on p. 117.
- 2) washed slide with Spacer 18 (Glen Research) + Activator followed by capping and oxidation.

- 3) Dried slide in desiccator for weekend.

Reaction on the Robert's machine:

- (1) Deblock ; wait (1 min), wash with  $\text{CH}_3\text{CN}$
- (2) Activator + UV-P6-C-phosphoramidite ; wait, wash
- (3) Cap 1 + Cap 2 ; wait, wash
- (4) Oxidize ; wait, wash
- (5) UV-light ; 5 min, without (used mask) any filter
- (6) wash
- (7) Activator + CY-phosphoramidite ; wait, wash

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essed &amp; Understood by me, \_\_\_\_\_

Date \_\_\_\_\_

Invented by \_\_\_\_\_

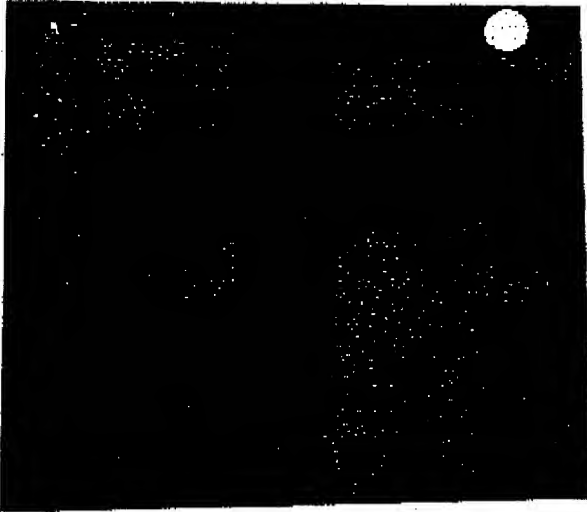
Date \_\_\_\_\_

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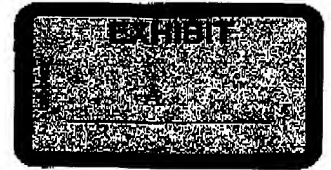
04/17/2003 10:33 2148660010

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mask



11/11/97 15:35

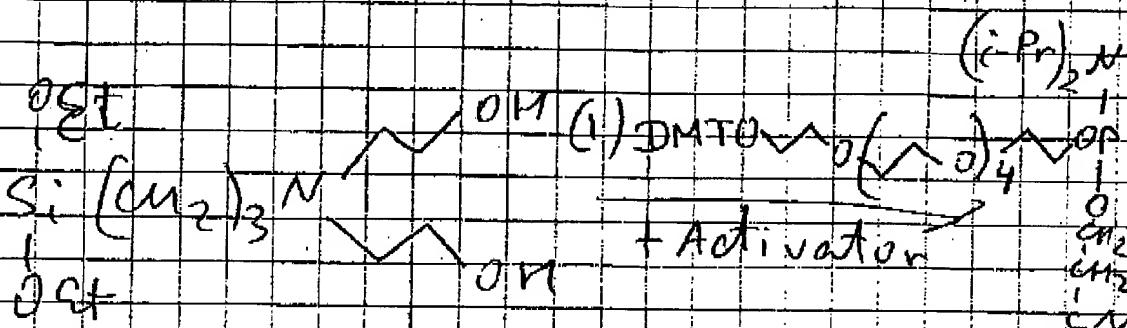
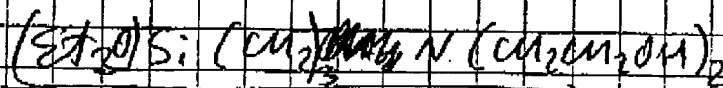
Focus

Page 1

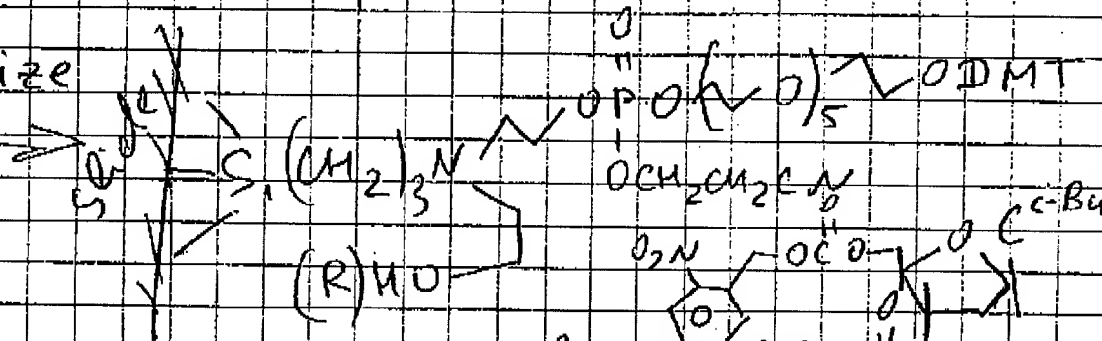
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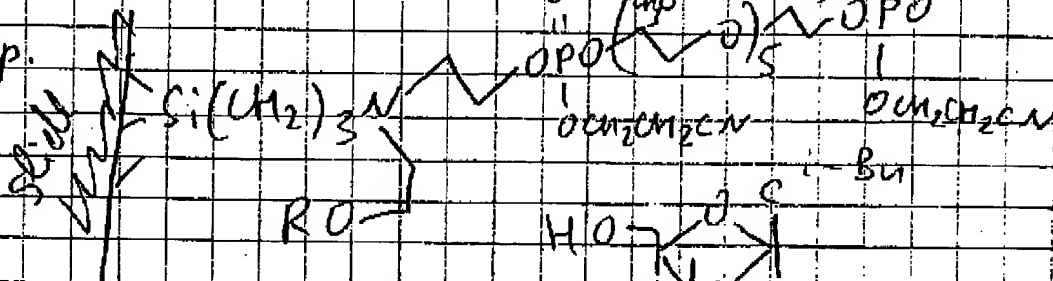
## Chemistry of successful run:



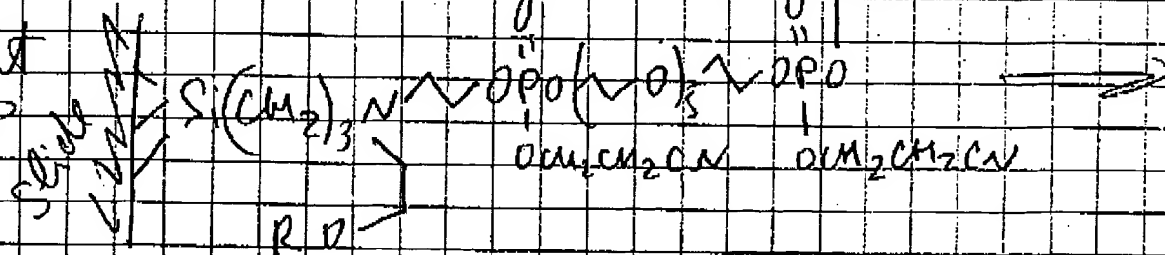
(3) oxidize



deblock

Activator +  
+ UV-PG-C-phosp.cap  
oxidize

N-light



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EXHIBIT

MMD

Used  $\text{Si}(\text{CH}_3)_3$   $\text{N}(\text{CH}_2\text{CH}_2\text{OH})_2$  Prepped Slide Prepared by ~~the~~  
 Yoon as shown on PG 114

~~Re Slide on Preparation Slide. Add 1:1 Deblocker:Activator.~~

~~Capped (1:1, Cap A + Cap B) Wash = Acetone/Nitric  
 Oxidized (1:1)~~

ADD SPACER & Activator (1:1 Ratio) (See Page 122 for Spacer Structure)

Capped (1:1 Cap 1: Cap 2), Wait, Wash

Oxidized, Wait, Wash

Deblocked, Wait, Wash

Added UV-PG-C-P<sub>2</sub> Activator (1:1) Ratio Wait, Wash

Capped, Wait, Wash

Oxidized, Wait, Wash

UV Light (15 min) No Filter, used Mask Grid

Took out of Res Chamber

Rest is Under Flood

Added Activator: Gr-P<sub>2</sub> in 1:1 Ratio, Wash

Oxidized, Wash, Wash

Wash w/ Acetone

Look Under Microscope

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Date

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